

IN THE CLAIMS:

Please amend the claims as set forth below:

- 1 1. (Currently Amended) An offline-online points system comprising:
 - 2 a main server configured for providing a user with an interface to submit a code obtainable by the user from an item; and
 - 4 a code server configured for maintaining a set of codes deemed to be valid and for comparing the code submitted by the user against the set of valid codes, wherein if based on the comparison the code is deemed valid the user is credited with a given number of points, wherein points earned by or credited to the user are accumulated, the accumulated points being redeemable for value, including value including an auctioned item for which the user submitted in an auction a winning bid; and
 - 10 an agent configured to participate in the auction and any number of other auctions - 11 individually or simultaneously as a respective proxy for the user.
- 1 2. (Previously Presented) The offline-online points system of claim 1, further comprising:
 - 2 a user database configured with an account for holding the accumulated points for the user.
- 1 3. (Previously Presented) The offline-online points system of claim 2, wherein the balance of the account is M points prior to the user's submission of the code, wherein the given number is N, and wherein the code server is configured for updating the account balance to M+N points after the user submits the code and if the code is valid.
- 1 4. (Previously Presented) The offline-online points system of claim 2, wherein the user earns points through auctioning items, the points being earned in lieu of cash payment for the auctioned items.
- 1 5. (Previously Presented) The offline-online points system of claim 1 wherein the code is C letters in length from an Alphabet of L letters.

- 1 6. (Previously Presented) The offline-online points system of claim 5, wherein C is 10.
- 1 7. (Previously Presented) The offline-online points system of claim 5, wherein L is 29.
- 1 8. (Previously Presented) The offline-online points system of claim 5, wherein L is 36.
- 1 9. (Withdrawn) A method of generating an encrypted code in base L, comprising steps:
 - 2 providing an n-bit number;
 - 3 applying a one-way hash function on the n-bit raw number with a first secret key to
 - 4 generate a first string;
 - 5 designating an m-bit portion of the first string as an m-bit validation number; and
 - 6 combining the m-bit validation number and the n-bit raw number to generate a second
 - 7 string.
- 1 10. (Withdrawn) The method of claim 9, further comprising steps:
 - 2 applying a DES3 encryption algorithm to the second string with a second secret key to
 - 3 generate a third string; and
 - 4 converting the third string to base L to generate the encrypted code.
- 1 11. (Withdrawn) The method of claim 9, wherein n=32, m=16, and L=29.
- 1 12. (Withdrawn) The method of claim 9, wherein the one-way hash function is MD5.
- 1 13. (Withdrawn) The method of claim 9, wherein the step of combining includes:
 - 2 concatenating the m-bit validation number and the n-bit raw number.
- 1 14. (Withdrawn) The method of claim 13, wherein the m-bit validation number is the most
- 2 significant bit (MSB) portion of the second string.

1 15. (Withdrawn) The method of claim 9, wherein the m-bit validation number is the most
2 significant bit (MSB) of the first string.

1 16. (Withdrawn) A method of verifying the validity of a code, comprising steps:
2 generating a code with encrypted information;
3 providing the code on a hard good to be distributed to users;
4 receiving the code online; and
5 verifying the validity of the code by processing the encrypted information.

1 17. (Withdrawn) The method of claim 16, wherein the step of generating includes steps:
2 providing an n-bit raw number;
3 applying a one-way hash function on the n-bit raw number with a first secret key to
4 generate a first string;
5 designing an m-bit portion of the first string as an m-bit validation number;
6 combining the m-bit validation number and the n-bit raw number to generate a second
7 string;
8 applying a DES3 encryption algorithm to the second string with a second secret key to
9 generate a third string; and
10 converting the third string to base L to generate the code with the encrypted
11 information.

1 18. (Withdrawn) The method of claim 17, wherein the step of verifying includes:
2 converting the code in base L to generate a first test code in base 2;
3 decrypting the first test code with the second secret key using a reverse DES3
4 encryption algorithm to generate a second test code;
5 applying the one-way hash algorithm to the second test code to generate a third test
6 code; and
7 comparing a designated m-bit portion of the second test code to a designated m-bit
8 portion of the third test code, and if the comparison is positive, declaring the code to be valid.

1 19. (Withdrawn) The method of claim 18, wherein the m-bit validation number is the m most
2 significant bit (MSB) of the first string in the generating step and the designated m-bit portion
3 is the most significant bit portion of the second test code and third test code in the comparing
4 step.

1 20. (Withdrawn) A method for awarding incentive points to a user, comprising steps:
2 generating a code with encrypted information;
3 providing the code to an entity for printing on a hard good;
4 receiving the code submitted by the user; and
5 verifying the validity of the code by processing the encrypted information.

1 21. (Withdrawn) The method of claim 20, wherein the step of generating includes steps:
2 providing an n-bit raw number;
3 applying a one-way hash function on the n-bit raw number with a first secret key to
4 generate a first string;
5 designating an m-bit portion of the first string as an m-bit validation number;
6 combining the m-bit validation number and the n-bit raw number to generate a second
7 string;
8 applying a DES3 encryption algorithm to the second string with a second secret key to
9 generate a third string; and
10 converting the third string to base L to generate the code with the encrypted
11 information.

1 22. (Withdrawn) The method of claim 21, wherein the step of verifying includes:
2 converting the code in base L to generate a first test code in base 2;
3 decrypting the first test code with the second secret key using a reverse DES3
4 encryption algorithm to generate a second test code;
5 applying the one-way hash algorithm to the second test code to generate a third test
6 code; and

7 comparing a designated m-bit portion of the second test code to a designated m-bit
8 portion of the third test code, and if the comparison is positive, declaring the code to be valid.

1 23. (Withdrawn) The method of claim 22, wherein the m-bit validation number is the m most
2 significant bit (MSB) of the first string in the generating step and the designated m-bit portion
3 is the most significant bit portion of the second test code and third test code in the comparing
4 step.

1 24. (Previously Presented) The offline-online points system of claim 1, wherein the points are
2 maintained in the account in an encrypted form to prevent unauthorized interference with the
3 user account.

1 25. (Previously Presented) The offline-online points system of claim 1, further comprising a
2 computer program for generating the code, the code being fixed onto a medium such that the
3 code is obtainable from the medium offline.

1 26. (Previously Presented) The offline-online points system of claim 25, wherein the medium
2 is a bottle cap from which the code is readable to the user.

1 27. (Withdrawn) The offline-online points system of claim 25, wherein the means for
2 generating the code includes
3 means for providing a number portion,
4 means for deriving a validation portion from the number portion,
5 means for appending the validation portion to the number portion to form a
6 string,
7 means for encrypting the string, and
8 means for deriving the code from the encrypted string by converting the
9 encrypted string to base L string.

1 28. (Withdrawn) The offline-online points system of claim 27, wherein the code is a fixed-
2 length string with C characters, and wherein the means for deriving the code further includes
3 means for prepending a character to the base L string any number of times that is needed to
4 achieve the fixed-length of C characters.

1 29. (Withdrawn) The offline-online points system of claim 27, wherein L is the number of
2 characters in the alphabet.

1 30. (Withdrawn) The offline-online points system of claim 27, wherein the string is 48-bits
2 long and the number portion is 32-bits long.

1 31. (Withdrawn) The offline-online points system of claim 25, wherein the means for
2 generating the code includes

3 means for providing a number portion, $S1_{INT}$, from a first string, S1

4 means for arranging a first secret key, K1, next to the number portion, $S1_{INT}$,
5 from S1, to form a second string, S2,

6 means for applying a hash function to S2 to produce a third string, S3,

7 means for extracting a validation portion, $S1_{VAL}$, from S3 and arranging
8 $S1_{VAL}$, next to $S1_{INT}$ in S1 ($S1 = S1_{VAL} + S1_{INT}$),

9 means for encrypting S1 using a second secret key, K2, to form a fourth string,
10 S4, and

11 means for deriving the code by converting S4 to a base L fixed-length code
12 string.

1 32. (Withdrawn) The offline-online points system of claim 31, wherein the first and second
2 secret keys, K1 and K2, are 128-bits long and the encryption means includes DES3
3 encryption algorithm.

1 33. (Withdrawn) The offline-online points system of claim 31, wherein the hash function
2 application means has MD5, a one-way hash algorithm.

1 34. (Withdrawn) The offline-online points system of claim 31, wherein S1 is 48-bits long and
2 the number portion, S1_{INT}, is 32-bits long.

1 35. (Withdrawn) The offline-online points system of claim 1, wherein for verifying the
2 submitted code the code server includes,

3 means for converting the submitted code from a base L string into a base 2
4 string, S4_{BASE2},

5 means for decrypting S4_{BASE2} using a second secret key, K2, to form a
6 decrypted first string, S1',

7 means for providing a number portion, S1'_{INT}, from S1'

8 means for arranging a first secret key, K1, next to the number portion, S1'_{INT},
9 from S1, to form a second string, S2',

10 means for applying a hash function to S2' to form a third string S3',

11 means for extracting a validation portion from S3' and a validation portion
12 from S1', and

13 means for determining if the code is valid by comparing the validation portion
14 from S3' with the validation portion from S1'.

1 36. (Withdrawn) The offline-online points system of claim 35, wherein S3' and S1 are each
2 48-bits long and the secret keys, K1 and K2 are 128-bits long.

1 37. (Withdrawn) The offline-online points system of claim 35, wherein the decryption means
2 includes DES3⁻¹ decryption algorithm and the hash function application means includes MD5
3 hash algorithm.

1 38. (Currently Amended) A system for incentive points earning and redemption, comprising:
2 an auction web server with an auction database for auctioning items in an auction;
3 a store web server with a store database for maintaining information on items offered
4 by a business;

5 a web server from which the auction web server and the store web server are
6 accessible to a user for interacting therewith, including for participating in the auction of an
7 item offered by the business, the web server, in turn, being accessible to the user from either
8 or both of the auction web server and the store web server;

9 an agent configured to participate in the auction and any number of other auctions
10 individually or simultaneously as a respective proxy for the user or the business; and

11 a user database configured for maintaining a user account with points earned by the
12 user,

13 wherein each point, characterized as a purchase or attention incentive point, is
14 redeemable for value, including value including an auctioned item for which the user
15 submitted a winning bid price of the item being auctioned.

1 39. (Previously Presented) A system as in claim 38, further comprising:

2 a code server configured for maintaining a set of codes that are deemed valid and
3 against which a code submitted by the user is verifiable,

4 wherein the code is obtainable by the user offline, and

5 wherein the user's interaction involves submission of the code for credit, the credit
6 being equal to a given number of points to be added to the user's account if the code is
7 verified to be valid.

1 40. (Previously Presented) A system as in claim 38, wherein the user's interaction involves
2 registration, an indicia of attention to an ad, or a purchase, in relation to which the user
3 database is configured to receive into the user account a predetermined number of points
4 earned by that user.

1 41. (Previously Presented) A system as in claim 38, wherein the user's interaction involves
2 entering a winning bid for the item being auctioned in relation to which the user database is
3 configured to dispatch a predetermined number of points taken out of that user's account.

1 42. (Previously Presented) A system as in claim 38, wherein the points are maintained in the
2 user account in an encrypted form to prevent unauthorized interference with the user account.

1 43. (Currently Amended) An offline-online incentive points system, comprising:
2 one or more client computers;
3 a network;
4 an agent configured to participate in one or more auctions individually or
5 simultaneously as a respective proxy for a user or a business; and
6 one or more servers accessible to the client computers via the network, the agent
7 residing in one of the client computers or one of the servers, at least one of the servers having
8 an account database configured with accounts for users, each user account contains points
9 earned by that user, wherein the points are redeemable for value, including value including an
10 auctioned item for which the user submitted a winning bid via one of the client computers, and
11 wherein the number of points contained in the account of a user is based on the number of
12 points earned and redeemed by the user during interaction with the at least one server.

1 44. (Previously Presented) A system as in claim 43, wherein the at least one server further has
2 a code server including a code database;
3 wherein the code server is configured for maintaining a set of codes deemed to be
4 valid and against which a code submitted by the user is verifiable,
5 wherein the code is obtainable by the user offline, and
6 wherein the user's interaction involves submission of the code for which a credit of a
7 given number of points is added to the user's account if the code is found to be valid..

1 45. (Previously Presented) A system as in claim 43, wherein the at least one server further
2 includes an authentication server configured for controlling user access by authenticating
3 account information submitted by the user.

1 46. (Previously Presented) A system as in claim 43, wherein the user's interaction involves
2 registration, an indicia of attention to an ad, or a purchase, in relation to which the account

3 database is configured to receive into the user's account a predetermined number of points
4 earned by that user.

1 47. (Previously Presented) A system as in claim 43, wherein the user's interaction involves
2 entering a winning bid in relation to which the account database is configured to dispatch a
3 predetermined number of points taken out of that user's account.

1 48. (Currently Amended) A system as in claim 43, wherein the network includes the Internet,
2 wherein the at least one server includes the [[a]] web server and a messaging server
3 integrated in an Internet server to facilitate the user's interaction.

1 49. (Previously Presented) A system as in claim 43, wherein the points are maintained in the
2 account in an encrypted form to prevent unauthorized interference with the user account.

1 50. (Currently Amended) A method for offline-online handling of ~~incentive~~ points,
2 comprising:
3 obtaining a code offline from an item;
4 submitting the code online to a server that maintains a set of codes deemed valid; ~~and~~
5 at the server, comparing the code against the set of valid codes and, if the code is
6 found to be valid, crediting a user that submitted the code with a given number of points
7 wherein points earned by or credited to the user are accumulated, the points being redeemable
8 for value including an auctioned item for which the user submitted a winning bid in an
9 auction;
10 instantiating an agent for participating as a respective proxy for the user or a business
11 in the auction and any number of other auctions individually or simultaneously.

1 51. (Previously Presented) A method as in claim 50, wherein the points are maintained in an
2 account for the user in encrypted form to prevent unauthorized interference with the user
3 account.

1 52. (Previously Presented) A method as in claim 50, wherein the points in the user account
2 are redeemable for a gift or a discount.

1 53. (Previously Presented) A method as in claim 52, wherein the auction is one of a standard
2 auction, a Dutch auction, a progressive auction, a buy-or-bid auction, and a declining bid
3 auction.

1 54. (Previously Presented) A method as in claim 52, wherein the auction involves one or
2 more of an automated closing, automated bidding, automated selling, and auction alert.

1 55. (Previously Presented) A method as in claim 51, wherein points are added to the account
2 for the user by authorizing credit points.

1 56. (Previously Presented) A method as in claim 50, wherein points accumulated for the user
2 are earned by or redeemed from the user in response to a point-actionable event.

1 57. (Previously Presented) A method as in claim 56, wherein the point-actionable event for
2 which points are earned is a purchase, an indicia of attention to an item on a web site, or
3 registration, and wherein the point-actionable event for which points are redeemed is a
4 winning auction bid.

1 58. (Previously Presented) A method as in claim 50 further comprising:
2 generating the code; and
3 fixing the code onto a medium such that the code is obtainable from the medium
4 offline.

1 59. (Previously Presented) A method as in claim 58, wherein the code is fixed onto the
2 medium by printing the code on a bottle cap from which the code is readable to the user.

1 60. (Withdrawn) A method as in claim 58, wherein the code is generated by

2 providing a number portion,
3 deriving a validation portion from the number portion,
4 appending the validation portion to the number portion to form a string;
5 encrypting the string, and
6 deriving the code from the encrypted string by converting the encrypted string
7 to base L string.

1 61. (Withdrawn) A method as in claim 60, wherein the code is a fixed-length string with C
2 characters, and wherein a character is prepended to the base L string any number of times that
3 is needed to achieve the fixed-length of C characters.

1 62. (Withdrawn) A method as in claim 60, wherein L is the number of characters in the
2 alphabet.

1 63. (Withdrawn) A method as in claim 60, wherein the string is 48-bits long and the number
2 portion is 32-bits long.

1 64. (Withdrawn) A method as in claim 58, wherein generating the code involves
2 providing a number portion, $S1_{INT}$, from a first string, S1
3 arranging a first secret key, K1, next to the number portion, $S1_{INT}$, from S1, to
4 form a second string, S2,
5 applying a hash function to S2 to produce a third string, S3,
6 extracting a validation portion, $S1_{VAL}$, from S3 and arranging $S1_{VAL}$, next to
7 $S1_{INT}$ in S1 ($S1 = S1_{VAL} + S1_{INT}$),
8 encrypting S1 using a second secret key, K2, to form a fourth string, S4, and
9 deriving the code by converting S4 to a base L fixed-length code string.

1 65. (Withdrawn) A method as in claim 64, wherein the first and second secret keys, K1 and
2 K2, are 128-bits long and the encryption involves DES3 encryption algorithm.

1 66. (Withdrawn) A method as in claim 64, wherein the hash function is MD5, a one-way hash
2 algorithm.

1 67. (Withdrawn) A method as in claim 64, wherein S1 is 48-bits long and the number
2 portion, S1_{INT}, is 32-bits long.

1 68. (Withdrawn) A method as in claim 50 wherein the step of verifying the submitted code
2 includes,

3 converting the submitted code from a base L string into a base 2 string,

4 S4_{BASE2},

5 decrypting S4_{BASE2} using a second secret key, K2, to form a decrypted first
6 string, S1',

7 providing a number portion from S1'

8 arranging a first secret key, K1, next to the number portion from S1' to form a
9 second string, S2',

10 applying a hash function to S2' to form a third string S3',

11 extracting a validation portion from S3' and a validation portion from S1', and
12 determining if the code is valid by comparing the validation portion from S3'
13 with the validation portion from S1'.

1 69. (Withdrawn) A method as in claim 68, wherein S3' and S1 are each 48-bits long and the
2 secret keys, K1 and K2 are 128-bits long.

1 70. (Withdrawn) A method as in claim 68, wherein the decryption involves DES3⁻¹
2 decryption algorithm and the has function involves MD5 hash algorithm.

1 71. (Currently Amended) An auction system, comprising:

2 a server;

3 clients, one or more of which having an agent configured to participate as a respective
4 proxy for their user in one or more auctions individually or simultaneously;

5 Internet connections interfacing the clients to the server; and
6 a database server operatively connected via a first link to the server and operatively
7 connected via a second link to a plurality of databases one of which being an account
8 database containing accounts with points that are maintained in encrypted form, the points
9 being redeemable for value including an auctioned item for which a winning bid is submitted;
10 wherein, when a bid is submitted to the server during an auction via one of the clients,
11 points are temporarily removed from their respective account in the account database and set
12 aside for the bid, the points being permanently removed from the account if the bid is
13 successful, and
14 wherein points are permanently removed from their respective accounts in the
15 database if their time has expired.